

Office Action Summary

Application No.

09/744,614

Applicant(s)

CARMAN, JOHN G.

Examiner

Francis P Moonan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 14 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) 1-14 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1 ☐ Certified copies of the priority documents have been received.
- 2 ☐ Certified copies of the priority documents have been received in Application No. _____.
- 3 ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other.

DETAILED ACTION

In Paper No. 7, Filed on 14 February 2002, applicants submitted new amendments including new Claims 8-14, and requested that the submitted amendments be considered as pre-amendments to the claims of Application No. 09/744,614.

In paper No. 7, applicants submit a Certificate of Deposit in accordance with 37 C.F.R. 1.8, as a statement over the Registration No. 36,553 of Alan. J. Howarth, the attorney of record. Applicant is advised that the request for consideration of the amendments in Paper No. 7 is acknowledged, and that the examiner has deemed the Certificate of Deposit as proof of mailing on 22 May 2001. Accordingly, the contents of paper No. 7 are considered as substitute sheets for papers containing requests for pre-amendments to the claims that have apparently been lost in the mail, and the restriction requirement of Paper No. 6 is deemed moot.

Claims 8-14 are newly added.

Accordingly, Claims 1-14 have been re-restricted in the Office Action as follows.

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in response to this action, to elect a single invention to which the claims must be restricted.

Group I. Claims 1-2, 5, 8-9, and 12, drawn to a method of making a genetically stabilized polyploid apomictic plant by sexual hybridization, and plants made by said method.

Group II. Claims 1-2 and 8-9, drawn to a method of making a genetically stabilized polyploid apomictic plant by chemical treatment, and plants made by said method.

Group III. Claims 3 and 10, drawn to a method of making a genetically stabilized apomictic plant with chemical or irradiation induced mutagenesis, and plants made by said method.

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Group IV. Claims 3 and 10, drawn to a method of making a genetically stabilized apomictic plant with application of stress to a plant, and plants made by said method.

Group V. Claim 4, 5, 7, 11, 12, and 14 drawn to a method of making a genetically stabilized apomictic plant by transformation with a recombinant nucleic acid construct, and plants made by said method.

Group VI. Claim 6 and 13, drawn to a method of making a plant with a high frequency of sexual seed formation from an apomictic plant, by transforming said apomictic plant with a recombinant antisense nucleic acid construct, and plants made by said method.

Claims 1-3, 5, 8-10, and 12 will be examined to the extent that they read on the elected invention.

The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical feature linking Groups I-VI appears to be a genetically stabilized apomictic plant product. However, a genetically stabilized apomictic plant lacks an inventive step or is not novel in view of ELLERSTROM (1983, Hereditas 99:315). Therefore the technical feature linking the inventions of Groups I-VI does not constitute a special technical feature as defined by PCT Rule 13.2, because it does not define a contribution over the prior art.

The special technical feature of Group I is drawn to a first product made by a first process of making. The first process utilizes a mode of operation effected by sexual hybridization procedures between plants, that result in making a first plant product with the characteristics of an allopolyploid genome comprising a recombination of native alleles, that are not required of the other Groups. Furthermore, the natively recombinant and allopolyploid characteristics of the first plant product are not required of the other Groups.

The special technical feature of Group II is that it is drawn to a second product made by a second process of making. The second process utilizes a mode of operation effected by chemical treatments of plants or plant parts that result in a plant with an autopolyploid genome, made for example by chemical treatment with an agent such as colchicine, that is not required of

the other Groups. Furthermore, the autopolyploid characteristics of the second plant product are not required of the other Groups.

The special technical feature of Group III is that it is drawn to a third product made and a third process of making. The third process utilizes a mode of operation effected by procedures for mutagenesis of plants, for example procedures requiring alkylating chemical mutagenic compounds or procedures with ultraviolet or gamma-irradiation treatments, that is not required of the other Groups. Furthermore, the mutant allele comprising characteristics of the third plant product are not required of the other Groups.

The special technical feature of Group IV is that it is a fourth product made and a fourth process of making. The fourth process utilizes a mode of operation effected by procedures requiring the application of stress to a plant, such as dehydration, freezing, or light intensity stress, that is not required of the other Groups. Furthermore, the apomictic fourth plant products have the characteristics that they are restricted to apomictic growth under specific environmental plant stress conditions, that are not required of the other Groups.

The special technical feature of Group V is that it is drawn to a fifth product made, and a fifth process of making. The fifth process utilizes a mode of operation effected by nucleic acid cloning and plant transformation procedures requiring different methodologies and manipulation steps, such as the manipulation of biological transformations agents such as *Agrobacterium*, or the operation of an apparatus such as a particle gun apparatus, that is not required by the other Groups.

The special technical feature of Group VI is that it is drawn to a sixth process and sixth plant product that is independent and distinct from the other Groups. The process of Group VI is a method to alter the normal asexual reproductivity of an apomictic plant to that of a mode of sexual reproduction, while the processes of Groups I-V are methods to make apomictic plants from sexually reproducing plant germplasm. Furthermore, the sixth plant product of the invention of Group VI has the characteristic that the plant is not apomictic, which is not required by any other Group. Group VI is therefore a distinctly different invention from the methods of Groups I-V, because the starting materials, method steps, and products made in Group VI are not required of Groups I-V, and the starting materials, method steps, and products made in Groups I-IV are not required of Group VI.

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Because these inventions are independent and distinct for the reasons stated above, do not relate to a single general inventive concept under PCT Rule 13.1, and the search for one group is not required of the others, restriction for examination purposes as indicated is proper.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis Moonan, whose telephone number is (703) 605-1201. The examiner can normally be reached on Monday through Friday 9:00 AM to 5:00 PM (E.S.T.)

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Hutzell, can be reached at (703) 308-4310. The fax phone number for this Group is (703) 308-4315. The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989).

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0196.

Francis Moonan, Ph. D.
26 February 2002

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